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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/634,171	08/09/2000	Emanuel Israel Cooper	13521(ARC9-2000-0067-US1)	5758

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EXAMINER

SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,171

Applicant(s)

COOPER ET AL.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 6, 2004 has been entered.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 31 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I. In claim 31 the limitation, "having less than 1% of oxygen and iron oxide" does not find support in the application as filed. In an attempt to show support for this claim language applicants have cited page 3, lines 14 to 16; page 10, lines 27 to 31 and

page 12, lines 27 to 29 of the specification. However, although each of these sections of the specification is directed to impurity levels in the claimed product none of the cited sections of the specification disclose that the upper limit for oxygen and iron oxide is 1%.

Claim Rejections - 35 USC § 103.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 10 and 28 to 31 are rejected under 35 U.S.C. 103(a) as obvious over Kakuno et al. (Kakuno, cited in the IDS submitted by the applicants on October 24, 2000) taken in view of the admitted known prior art disclosed on page 2, lines 25 to 27 of the applicants' specification and Mallary (US Patent No. 4,695,351, newly cited on the PTO Form-892 attached to this Office action).

Kakuno teaches specific examples alloys having compositions that are encompassed by the alloy composition recited in the instant claims (see Kakuno, page 3223, Figures 1 and 2; page 3224 Figure 3 and Table 1, Alloys 7 to 9). Kakuno teaches that these alloys have a very shiny surface (page 3223, left column, line 10) which is considered to be the same as the "substantially smooth bright surface" recited in claim 30 (line 3). Kakuno teaches that these alloys are made by electroplating to a thickness of 0.3 μm (page 3222, right column, under the heading, "Experimental ", the first paragraph). Electroplating is the same process disclosed by applicants to make the

instantly claimed alloy film. Further, Kakuno teaches electroplating using a current density of 10 to 50 mA/cm² (page 3223, left column, lines 1 to 5) which overlaps applicants' disclosed current density of 3 to 40 mA/cm² and applicants' preferred current density of 5 to 30 mA/cm² and completely encompasses applicants' most preferred current density of 10 to 20 mA/cm² (see instant specification, page 15, lines 25 to 32). Thus, Kakuno's alloys have compositions that are encompassed by the instant claims and are made by electroplating employing the same process conditions as applicants' disclosed method of making the claimed alloy films.

The claims and Kakuno differ in that Kakuno does not teach the following properties recited in the applicants' claims;

“anisotropic”,

“having a saturation magnetization of 2.3 Tesla or greater” and
the impurity level upper limit recited in new claim 31.

In the specification at page 2, lines 25 to 27 it is disclosed that it is essential that a Co-Fe film be anisotropic in order to used in a magnetic head.

Mallary teaches that it is known to induce magnetic anisotropy in electro-deposited magnetic films by electrodepositing the film in a magnetic field (Abstract and column 2, line 65 to column 3, line 3 and column 3, lines 20 to 30).

One of ordinary skill in the art at the time the invention, knowing that it is essential that a Co-Fe film be anisotropic in order to used in a magnetic head (as disclosed in the applicants' specification, page 2, lines 25 to 27) would have been motivated to apply a magnetic field to Kakuno's electro-deposition process so as to

induce the required anisotropy in the Co-Fe alloy film as taught by Mallery. Further, in view of the fact, that Kakuno's specific example alloys have compositions that are encompassed by the instant claims and are made by electroplating just as applicants' claimed alloys, using current densities that encompass applicants' preferred current densities, Kakuno's alloys would be expected to possess all the same properties as recited in the instant claims, including the impurity level recited in claim 31, *In re Best*, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, *In re Best*, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' *In re Spada*, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner) see MPEP2112.01.

Response to Arguments

Applicant(s) arguments submitted December 6, 2004 have been considered but have been found non-persuasive.

In the last Office action mailed September 3, 2004 the Examiner found the applicants' declaration under 37 CFR 1.132 to be non-persuasive. The Examiner has reconsidered his position regarding said declaration in light of applicants comments submitted December 6, 2004. The Examiner's position regarding applicants' declaration is as follows.

3. The declaration under 37 CFR 1.132 filed June 14, 2004 is still insufficient to overcome the rejection of claims 1 to 10 and 28 to 30 as set forth in the last Office action because:

I. The Examiner's previous comment has been overcome by the applicants' response.

II. The Examiner's previous comment has been overcome by the applicants' response.

III. In the paragraph bridging pages 9 and 10 of the declaration applicants state that Kakuno's alloy was very brittle after annealing which indicates a high impurity level while applicants' alloy is still in tact after annealing. Applicants appear to be implying that their claimed alloy would thus have less impurities. This is not persuasive. It is not clear that Kakuno's alloy and the inventive alloy were annealed at the same temperature, so whether an alloy is "intact" or "very brittle" is not necessarily a function of the impurity level but rather could also be a function of the annealing temperature. There are no objective measurements of the brittleness or impurity levels of the alloy films, without objective measurements a comparison of the 2 alloys is virtually meaningless. In this section of the declaration applicants' have based their discussion on an inventive alloy and a Kakuno alloy containing 64 wt% Fe. Applicants also refer to Kakuno's Figure 5 as showing cracks, however, the alloy in Kakuno's Figure 5 does not contain 64 % Fe and thus the inclusion of Kakuno's Figure 5 in this section of the declaration is not proper. In this paragraph applicants refer to

Exhibits 2 and 3. It is noted that there are no exhibits labeled as Exhibit 2 or Exhibit 3.

Applicants' arguments regarding the purity level of the claimed alloy are not persuasive in that, with the exception of new claim 31, all of applicants' claims are silent with respect to impurity levels. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With respect to claim 31 the impurity data set forth in the declaration is not persuasive in that the data is based on but one example of the claimed invention (see paragraph 11 of the declaration). In view of this, the Declaration, with respect to the impurity level of the prior art and the claimed invention, is not considered to be commensurate in scope to the claims, *In re Dill* 202 USPQ 805 and MPEP 716.02(d). Further, general superiority cannot be inferred from the results obtained using a single embodiment of the claimed invention, *In re Greenfield*, 197 USPQ 227, 230 and MPEP 2144.08 (B).

Regarding the absence of Exhibits 2 and 3, applicants state that "both a marked tab and a marked separating page are placed before each of the Exhibits as labeling and separating marks". The copy of the declaration received by the Examiner has neither tabs nor separating pages identifying Exhibits 2 and 3.

IV. In the first full paragraph on page 10 of the declaration applicants state that magnetic moment for Kakuno's alloy containing 64 % Fe is 2.2 Tesla

while for applicants' alloy containing 64% Fe is 2.4 Tesla and then state the resistivity of the respective alloy films. This is not persuasive. It is not clear how applicants arrived at the stated values for the magnetic moment and resistivity. Applicants' claims are silent with respect to magnetic moment and with the exception of claim 6 are silent with respect to resistivity, so an alleged difference in these properties does not lend patentability to the claimed invention. If it is assumed that applicants intended "saturation magnetization" as is recited in the applicants' claims, then it is the Examiner's position that, the data representing the claimed invention is based on a single example alloy containing 64 % Fe. Again, in view of the fact that applicants are relying on but one example of the claimed invention, the Declaration is not considered to be commensurate in scope to the claims, *In re Dill* 202 USPQ 805 and MPEP 716.02(d). Further, general superiority cannot be inferred from the results obtained using a single embodiment of the claimed invention, *In re Greenfield*, 197 USPQ 227, 230 and MPEP 2144.08 (B).

In paragraph 10 of the declaration applicants refer to Exhibit 4. this discussion of Exhibit 4 is not persuasive in that the claims are silent with respect to crystal size and, again with the exception of claims 31, are silent with respect to the impurity level of the claimed alloy. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, in view of the use of the term "probably" at page 11, line 5 it appears that

the subsequent discussion appearing in paragraph 10 is based on undisclosed assumptions that have been made by the applicants. Finally, the discussion set forth in paragraph 10 of the declaration is based on one example of the claimed invention (an alloy containing 76 % Fe). Thus, the Declaration is not considered to be commensurate in scope to the claims, In re Dill 202 USPQ 805 and MPEP 716.02(d). Further, general superiority cannot be inferred from the results obtained using a single embodiment of the claimed invention, In re Greenfield, 197 USPQ 227, 230 and MPEP 2144.08 (B).

VI. The Examiner agrees with the applicants that there are 2 alloys (an alloy containing 64% Fe and an alloy containing 76% Fe) in the declaration that are representative of the instantly claimed invention. However, as set forth above in paragraph III, IV and V, applicants have relied on only one or the other of these two alloys to make various points. Thus, in attempting to establish various facts in this declaration applicants have relied on only one example of the claimed invention. In view of this, the Declaration is not considered to be commensurate in scope to the claims, In re Dill 202 USPQ 805 and MPEP 716.02(d). Further, general superiority cannot be inferred from the results obtained using a single embodiment of the claimed invention, In re Greenfield, 197 USPQ 227, 230 and MPEP 2144.08 (B).

VII. Applicants' discussion of the data reported in the ESCA profiles on page 13 of the declaration is not persuasive in that in the copy of the declaration available to the Examiner all curves on these graphs are solid black lines. In

view of this, it is impossible to know which curve represents which element and thus it is impossible to follow applicants' discussion of these results.

Applicants' "assert that the graphs on page 13 of the Declaration (ESCA profiles are multicolored in the original document and clearly support applicants' discussion of the results". This is not persuasive in that the copy of page 13 that is available to the Examiner is not in color but rather is in black and white.

Applicants, in response to the Examiner's reliance on MPEP 2112.01 in the statement of the rejection, argues differences in the processes taught by the prior art and disclosed in the instant specification and that in view of these alleged differences "the properties of the inventive alloy are markedly different than Kakuno's alloy films". This is not persuasive. While applicants have pointed out differences between applicants' claimed process and Kakuno's process applicants have not presented any persuasive evidence to support their allegation that the instantly claimed alloy and Kakuno's alloy are in fact different. As set forth in the statement of the rejection Kakuno teach specific example alloys having compositions that are encompassed by the instant claims. The Examiner has also pointed out the similarities between applicants' claimed process and Kakuno's process. It is the Examiner's position that processes do not have to exactly the same but

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can

be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner) see MPEP 2112.01.

In the instant case, the example alloy compositions taught by Kakuno are encompassed by the instant claims and therefore are identical in composition to the claimed alloy composition. In addition, Kakuno's alloys, if not made by the same process as the applicants' alloys, are made by a substantially identical process. Under these circumstances the burden shifts to the applicants to show that the prior art product and the instantly claimed product are not the same. Applicants have not presented any convincing evidence to support their allegation and therefore have not met their burden.


In the first full paragraph on page 12 of their response applicants state that the instant alloy "distinguishes over Kakuno's alloy films in magnetic moment, resistivity, B-H loops, crystallinity and impurity concentrations", however, with the exception of claims 6 and 31 the claims are silent with respect to these properties.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John P. Sheehan
Primary Examiner
Art Unit 1742

jps